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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,176	11/17/2006	Petra Perner	DE0402229	4059
36608 7590 03/25/2009 GUDRUN E. HUCKETT DRAUDT SCHUBERTSTR. 15A WUPPERTAL, 42289 GERMANY			EXAMINER SMITH, CAROLYN L	
			ART UNIT 1631	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/574,176

**Applicant(s)**

PERNER, PETRA

**Examiner**

Carolyn Smith

**Art Unit**

1631

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-18 is/are rejected.
- 7) ☒ Claim(s) 17, 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/55/08)  
Paper No(s)/Mail Date 3302006.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

### **DETAILED ACTION**

Cancelled claims 1-9 and new claims 10-18, filed 11/17/06, are acknowledged.

The information disclosure statement, filed 3/30/06, has been considered by the Examiner.

Claims herein under examination are 10-18.

#### ***Claim Objections***

Claims 17 and 18 are objected to because of the following minor informalities:

Claim 17 recites “dying” which is misspelled.

Claim 18 recites “digitalized” (line 5) which is not in the same verb tense as the other steps (i.e. dyeing, recording) which is inconsistent.

Appropriate correction is requested.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 10-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 10-18 are drawn to a process. A process is statutory subject matter under 35 U.S.C. 101 if: (1) it is tied to a particular machine or apparatus or (2) it transforms an article to a different state or thing (In re Bilski, 88 USPQ2d 1385 Fed. Cir. 2008).

The claimed subject matter is not limited to a particular apparatus or machine. To qualify as a statutory process, the claims should require use of a machine within the steps of the claimed subject matter or require transformation of an article to a different state or thing. Insignificant extra-solution activity in the claimed subject matter will not be considered sufficient to convert a process that otherwise recites only mental steps into statutory subject matter (In re Grams 12 USPQ2d 1824 Fed. Cir. 1989). Preamble limitations that require the claimed process to comprise machine implemented steps will not be considered sufficient to convert a process that otherwise recites only mental steps into statutory subject matter. It is noted that the instant claim 10 recites “digitalizing the at least one color image to a digitalized color image”; however, this step (i.e. data changing to different data) is not a transformation of an article to a different state or thing. It is further noted that claims 10-18 do not explicitly require that the steps of the claimed method are performed on a machine. Applicant is cautioned against introduction of new matter in an amendment.

Claims 10-18 are drawn to a process. For a process that comprises an abstract idea to be statutory, it must comprise a practical application of the abstract idea. Claimed subject matter may require a practical application by claiming, or requiring use of, a machine, or by requiring a physical transformation of an article to a different state or thing (In Re Bilski (88 USPQ2d 1385 Fed. Cir. 2008)). Even if claimed subject matter claims, or requires use of, a machine, the claimed subject matter may not require a practical application. One indication that claimed subject matter

requires a practical application is an explicit requirement of a useful concrete, and tangible result as discussed in *In re Alappat* (31 USPQ2d 1545 Fed. Cir. 1994):

Although many, or arguably even all,<sup>22</sup> of the means elements recited in claim 15 represent circuitry elements that perform mathematical calculations, which is essentially true of all digital electrical circuits, the claimed invention as a whole is directed to a combination of interrelated elements which combine to form a machine for converting discrete waveform data samples into anti-aliased pixel illumination intensity data to be displayed on a display means.<sup>23</sup> This is not a disembodied mathematical concept which may be characterized as an “abstract idea,” but rather a specific machine to produce a useful, concrete, and tangible result.

The instant claims do not result in a physical transformation, thus the Examiner must determine if the instant claims include a practical application (i.e. useful, concrete, and tangible result). In determining if the claimed subject matter produces a useful, concrete, and tangible result, the Examiner must determine each standard individually. For a claim to be “useful” the claim must produce a result that is specific and substantial. For a claim to be “concrete” the process must have a result that is reproducible. For a claim to be “tangible” the process must produce a real world result. Furthermore, the claim must be limited only to statutory embodiments.

Claims 10-18 do not require production of a tangible result in a form that is understandable to the user of the process or apparatus. A tangible result requires that the claim must set forth a practical application to produce a real-world result. This rejection could be overcome by amendment of the claims to recite that a result of the process is outputted to a

display, to a user, in a graphical format, or in a user readable format, or by including a physical transformation. The applicants are cautioned against introduction of new matter in an amendment.

***Claims Rejected Under 35 U.S.C. § 112, Second Paragraph***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

The preamble of claim 10 recites identification of microorganisms whereas the body of the claim recites identifying objects, which are not necessarily microorganisms. Therefore, it is not clear if the preamble is intended to limit the method and what relationship is intended between the preamble and method steps. Clarification of this issue is requested. Claims 11-18 are also rejected due to their dependency from claim 10.

Claim 10 recites the limitation "the classification system" in the last line. There is insufficient antecedent basis for this limitation in the claim as there is no previous mention of a classification system. Clarification of this issue is requested. Claims 11-18 are also rejected due to their dependency from claim 10.

Claims 10 (line 9 and penultimate line), 11 (line 2), 12 (lines 2, 3), 13 (lines 2-3), 15 (line 4), 16 (line 2), and 18 (line 6) recite "is produced", "is [...] discarded or added", "are counted",

“is indicated”, “are purged”, “is [...] standardized”, “are removed”, “is recorded”, and “are performed” which lack clarity. Since the verbs are recited in the passive tense, it is unclear whether these limitations are intended to be actual method steps, are intended results, or some other scenario. Applicant is reminded that any method steps must be clearly recited in active, positive language. Clarification of this issue is requested. Claims 14 and 17 are also rejected due to their dependency from claim 10.

Claim 11 recites “are counted to determine a count and indicated and/or saved” which lacks clarity. It is unclear if Applicant intends this limitation to read as (counting AND indicating taking place together) AND/OR saving. Or if Applicant intends this limitation to read as counting AND either (indicating AND/OR saving taking place). A similar issue is present in claim 12. Clarification of this issue is requested.

Claim 15 recites several steps which lack clarity. It is unclear if all or just some of the steps are required. Amending in the word “and” or “or” before the last step will nullify this rejection.

Claim 15 recites the limitation “the original separated object” in line 11. There is insufficient antecedent basis for this limitation in the claim. While there is previous mention of separating multiple objects, it is unclear to which particular object is being referred in the limitation “the original separated object”. Clarification of this issue is requested.

Claim 15 recites the limitation “the determined identified object” in the last two lines. There is insufficient antecedent basis for this limitation in the claim. While there is previous mention of multiple objects being identified, it is unclear to which particular object is being

referred to in the limitation “the determined identified object”. Clarification of this issue is requested.

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file. However, because a certified English translation of the foreign application has not been provided, the effective priority date for the instant application is 10/1/04.

***Claim Rejections – 35 USC §102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10-14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Yguerabide et al. (US 2003/0096302 A1).

Yguerabide et al. disclose a method for automatic identification of microorganisms collected on a carrier, which microorganisms are fungal spores and bacteria and are airborne or present in water (0146, 0285, 0313, 0357, 0539, 0635, 0719, 0746, 0785, 0787, 0081), the method comprising the steps of:



- a) recording at least one color image of a carrier surface with collected microorganisms ( 0719, 0789, 0132, 0142, 0146, 0648);
- b) digitalizing the at least one color image to a digitalized color image (0146, 0648);
- c) converting the digitalized color image into a grayscale image and optionally converting subsequently the grayscale image into a silhouette image, wherein, when microorganisms are present, an image is produced with resulting full-surface labeled objects of a first grayscale and a background of a different second grayscale (0146, 0647-0649);
- d) identifying objects as identified objects in the grayscale image and/or in the silhouette image by a model-based comparative method (0447, 0648-0650, 0652-0654) ;
- e) marking contours of the identified objects in the color image and/or in the grayscale image (i.e. edge detection; 0146, 0647);
- f) determining at least one feature of the identified objects in the color image and/or in the grayscale image (0647-0652);
- g) classifying case-by-case the identified objects based on the at least one feature as classified objects (0650-0652);
- h) indicating and/or saving the classified objects as species and/or name and/or code (0651-0654, 0453, 0537, 0647-0650); and
- i) indicating and/or saving at least one non-classified, unidentified object, if present, as a color image and/or grayscale image and/or silhouette image wherein at least one non-classified, unidentified object is subsequently discarded or added as a new case with determined class in the classification system (i.e. eliminating unclassified background, 0444, 0383, 0385, 0403), as stated in instant claim 10.

Yguerabide et al. disclose counting classified objects and indicated as name or code as well as counting all objects (0445-0448, 0544, 0635, 0651, 0673), as stated in instant claims 11 and 12.

Yguerabide et al. disclose purging errors from the color image which is standardized by image preprocessing (0458, 0476-0477, 0480-0481, 0488-0495), as stated in instant claim 13.

Yguerabide et al. disclose edge detection (i.e. shape) (0131-0134, 0142, 0146, 0647), as stated in instant claim 14.

Yguerabide et al. disclose a two-dimensional image (0146), as stated in instant claim 16.

Thus, Yguerabide et al. anticipate the limitations in claims 10-14 and 16.

#### *Additional prior art*

Although not being used in a prior art rejection, the following article is being put on the record: Dugan et al. (Applied Microbiology, 1974, Volume 28, Number 2, pages 205-211) describe using color images to identify 10 different bacterial species.

#### *Conclusion*

No claim is allowed.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG

30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (See 37 CFR §1.6(d)). The Central Fax Center number for official correspondence is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn Smith, whose telephone number is (571) 272-0721. The examiner can normally be reached Monday through Thursday from 8 A.M. to 6:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie Moran, can be reached on (571) 272-0720.

3/23/09

/Carolyn Smith/  
Primary Examiner  
AU 1631